

P24820.A04

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. - 26. (canceled)

27. (currently amended) A catalytic composition for deodorizing or oxidizing purposes, the composition comprising a coating ~~of a coating material~~ on a support, obtainable by a process comprising:

(i) applying to the support a coating material comprising:

(1) a polycondensate of:

(A) one or more silanes of formula $R_aSiX_{(4-a)}$ where each R independently represents a non-hydrolyzable group; each X independently represents a hydroxy group or a hydrolyzable group; and a is 0 or an integer of from 1 to 3 and is greater than 0 for at least 50 mol% of the one or more silanes; or an oligomer derived therefrom;

(B) optionally, one or more compounds of glass-forming elements;

(2) particles comprising at least one transition metal oxide which exhibits catalytic activity in at least one of a deodorization and an oxidation process,

P24820.A04

a weight ratio of the particles to the polycondensate being from 1:10 to 10:1;

(ii) thermally treating the applied coating material to form the coating.

28. (previously presented) The composition of claim 27, wherein a is greater than 0 for from 50 mol% to 95 mol% of the silanes.

29. (previously presented) The composition of claim 27, wherein the particles comprise at least one of the oxides of La, Ce, Ti, Zr, V, Cr, Mo, W, Mn, Fe, Co, Ni, Cu, Ag, and Zn.

30. (canceled)

31. (canceled)

32. (canceled)

33. (canceled)

P24820.A04

34. (previously presented) The composition of claim 27, wherein the particles have a surface area of from 1 to 100 m²/g.

35. (previously presented) The composition of claim 27, wherein the particles have an average diameter of from 10 nm to 20 µm.

36. (canceled)

37. (previously presented) The composition of claim 27, wherein the coating has a thickness of from 0.01 µm to 500 µm.

38. (previously presented) The composition of claim 27, wherein the support comprises at least one of a metal, a metal oxide, glass, glass ceramic, ceramic and a porous material.

39. (previously presented) The composition of claim 27, wherein the thermal treatment of the applied coating material comprises a treatment at a temperature of from 200° to 700° C.

P24820.A04

40. (currently amended) The composition of claim 29, wherein the weight ratio of the particles to the polycondensate is from 1:10 to ~~1:1~~ 2:1.

41. (currently amended) The composition of claim ~~30~~ 40, wherein the weight ratio of the particles to the polycondensate is from 1:10 to ~~2:1~~ 1:1.

42. (previously presented) The composition of claim 27, wherein the coating further comprises inorganic particles.

43. (canceled)

44. (withdrawn) A process for preparing a catalytic composition for deodorizing or oxidizing purposes, the composition comprising a coating of a coating material on a support, wherein the process comprises:

(i) applying to the support a coating material comprising:

(1) a polycondensate of:

(A) one or more silanes of formula $R_aSiX_{(4-a)}$ where each R independently represents a non-hydrolyzable group; each X independently represents a hydroxy group or a hydrolyzable group; and a is 0 or an integer of from 1 to 3 and is greater than 0 for at

least 50 mol% of the one or more silanes; or an oligomer derived therefrom;

(B) optionally, one or more compounds of glass-forming elements;

(2) particles comprising at least one transition metal oxide which exhibits catalytic activity in at least one of a deodorization and an oxidation process, a weight ratio of the particles to the polycondensate being from 1:10 to 10:1;

(ii) thermally treating the applied coating material to form the coating.

45. (withdrawn) The process of claim 44, wherein prior to being thermally treated the coating material is dried.

46. (withdrawn) The process of claim 44, wherein the thermal treatment of the applied coating material comprises a treatment at a temperature of from 200° to 700° C.

47. (withdrawn) The process of claim 44, wherein the thermal treatment of the applied coating material comprises a treatment at a temperature of from 300° to 400° C.

48. (withdrawn) The process of claim 47, wherein the particles comprise a mixture of oxides of Mn and Ce.

49. (withdrawn) The process of claim 46, wherein the support comprises at least one of a metal, a metal oxide, glass, glass ceramic, ceramic and a porous material.

50. (withdrawn) A method of deodorizing odor-containing air, wherein the method comprises passing the odor containing air over the composition of claim 27.

51. (withdrawn) The method of claim 50, wherein the composition is maintained at a temperature of from 150° to 500° C.

52. (withdrawn) A method of oxidizing carbon or organic components present on a surface of the composition of claim 27, wherein the method comprises heating the composition to a temperature of from 150° to 500° C.

53. (currently amended) A catalytic composition for deodorizing or oxidizing purposes, the composition comprising a porous coating ~~of a coating material~~ on a support, prepared by a process comprising:

(i) applying to the support a coating material comprising:

- (1) a polycondensate of:
 - (A) one or more silanes of formula $R_aSiX_{(4-a)}$ where each R independently represents a non-hydrolyzable group; each X independently represents a hydroxy group or a hydrolyzable group; and a is 0 or an integer of from 1 to 3 and is greater than 0 for at least 50 mol% of the one or more silanes; or an oligomer derived therefrom;
 - (B) optionally, one or more compounds of glass-forming elements;
- (2) particles having an average diameter of from 1 μm to 20 μm and comprising transition metal oxides which comprise at least oxides of Mn and Ce and exhibit catalytic activity in at least one of a deodorization and an oxidation process, a weight ratio of the particles to the polycondensate being from 1:10 to 2:1;
- (ii) thermally treating the applied coating material at a temperature of from 300° C to 400° C to form a coating having a thickness of from 0.01 μm to 500 μm .

54. (new) A catalytic composition for deodorizing or oxidizing purposes, the composition comprising a coating on a support, obtainable by a process comprising:

- (i) applying to the support a coating material comprising:
 - (1) a polycondensate of:

- (A) one or more silanes of formula $R_aSiX_{(4-a)}$ where each R independently represents a non-hydrolyzable group; each X independently represents a hydroxy group or a hydrolyzable group; and a is 0 or an integer of from 1 to 3 and is greater than 0 for at least 50 mol% of the one or more silanes; or an oligomer derived therefrom;
- (B) optionally, one or more compounds of glass-forming elements;
- (2) particles comprising at least one transition metal oxide which exhibits catalytic activity in at least one of a deodorization and an oxidation process, a weight ratio of the particles to the polycondensate being from 1:10 to 10:1;
- (ii) thermally treating the applied coating material to form the coating;
- wherein the particles (2) comprise a mixture of oxides of Mn and Ce.

55. (new) The composition of claim 54, wherein the particles further comprise an oxide of at least one further transition metal which exhibits catalytic activity in at least one of a deodorization and an oxidation process.

56. (new) The composition of claim 54, wherein the particles further comprise an oxide of at least one of Co, Cu, Ni and Fe.

57. (new) A catalytic composition for deodorizing or oxidizing purposes, the composition comprising a coating on a support, obtainable by a process comprising:

(i) applying to the support a coating material comprising:

(1) a polycondensate of:

(A) one or more silanes of formula $R_aSiX_{(4-a)}$ where each R independently represents a non-hydrolyzable group; each X independently represents a hydroxy group or a hydrolyzable group; and a is 0 or an integer of from 1 to 3 and is greater than 0 for at least 50 mol% of the one or more silanes; or an oligomer derived therefrom;

(B) optionally, one or more compounds of glass-forming elements;

(2) particles comprising at least one transition metal oxide which exhibits catalytic activity in at least one of a deodorization and an oxidation process, a weight ratio of the particles to the polycondensate being from 1:10 to 10:1;

(ii) thermally treating the applied coating material to form the coating;

wherein the particles (2) comprise a mixture of oxides wherein one or more oxides are present in the following weight percentages:

oxide(s) of Ce: 1 - 70

oxide(s) of V: 5 - 70

oxide(s) of Mn: 20 - 95

oxide(s) of Fe: 20 - 95

oxide(s) of Co: 1 - 50

oxide(s) of Ni: 1 - 50

oxide(s) of Cu: 1 - 95.

58. (new) A catalytic composition for deodorizing or oxidizing purposes, the composition comprising a coating on a support, obtainable by a process comprising:

(i) applying to the support a coating material comprising:

(1) a polycondensate of:

(A) one or more silanes of formula $R_aSiX_{(4-a)}$ where each R independently represents a non-hydrolyzable group; each X independently represents a hydroxy group or a hydrolyzable group; and a is 0 or an integer of from 1 to 3 and is greater than 0 for at least 50 mol% of the one or more silanes; or an oligomer derived therefrom;

(B) optionally, one or more compounds of glass-forming elements;

(2) particles comprising at least one transition metal oxide which exhibits catalytic activity in at least one of a deodorization and an

oxidation process, a weight ratio of the particles to the polycondensate being from 1:10 to 10:1;

- (ii) thermally treating the applied coating material to form the coating; wherein the particles (2) comprise at least one of the oxides of La, Ce, Ti, Zr, V, Cr, Mo, W, Mn, Fe, Co, Ni, Cu, Ag, and Zn have an average diameter of from 1 μm to 20 μm .

59. (new) A catalytic composition for deodorizing or oxidizing purposes, the composition comprising a porous coating on a support, obtainable by a process comprising:

- (i) applying to the support a coating material comprising:
- (1) a polycondensate of:
- (A) one or more silanes of formula $\text{R}_a\text{SiX}_{(4-a)}$ where each R independently represents a non-hydrolyzable group; each X independently represents a hydroxy group or a hydrolyzable group; and a is 0 or an integer of from 1 to 3 and is greater than 0 for at least 50 mol% of the one or more silanes; or an oligomer derived therefrom;
- (B) optionally, one or more compounds of glass-forming elements;
- (2) particles comprising at least one transition metal oxide which exhibits catalytic activity in at least one of a deodorization and an

oxidation process, a weight ratio of the particles to the
polycondensate being from 1:10 to 10:1;

(ii) thermally treating the applied coating material to form the porous coating.